Title (en)

Anti-torque device with shrouded rotor and straightening stator and phase modulation of the rotor blades positions, for helicopters.

Title (de)

Gegendrehmomentvorrichtung mit einem eingelassenen Heckrotor und Abrichtstator, und Phasenmodulation der Rotorblattstellung, eines Hubschraubers.

Title (fr)

Dispositif anti-couple à rotor et stator redresseur carénés, et modulation de phase des pales du rotor, pour hélicoptère.

Publication

EP 0680872 A1 19951108 (FR)

Application

EP 95400997 A 19950502

Priority

FR 9405478 A 19940504

Abstract (en)

The tail rotor comprises a multi-blade, variable-pitch rotor mounted coaxially in an air flow channel in the helicopter tail (3), surrounded by a housing (5). The rotor blades turn with their pitch axes rotating in a plane lying perpendicular to the axis of the air flow channel, and their angular distribution about the rotor's axis has an irregular azimuthal modulation, so that the angle between any two blades of the rotor is different to the angle between any two blades (9) of the adjacent air flow rectifier stator (8). The rectifier blades are inclined in a radial direction relative to the axis of the air flow channel and in the opposite direction to the rotor blades. In addition the stator blades have their leading edges set at a distance from the rotor blades' plane of rotation at their tips corresponding to 1.3-2.5 c, where c is the chord of the rotor blades. <IMAGE>

Abstract (fr)

Un redresseur (8) à aubes (9) fixes et à profil aérodynamique est monté en aval du rotor (7) à pales (10) dans la veine (6) transversale traversant la carène (5) à l'arrière de l'hélicoptère. Les pales (10) du rotor (7) ont une répartition angulaire autour de l'axe du rotor selon une modulation azimutale irrégulière, telle que tout angle entre deux pales (10) quelconques du rotor (7) est différent de tout angle entre deux aubes (9) quelconques du redresseur (8). <IMAGE>

IPC 1-7

B64C 27/82

IPC 8 full level

B64C 27/82 (2006.01)

CPC (source: EP US)

B64C 27/82 (2013.01 - EP US); B64C 2027/8254 (2013.01 - EP US)

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Designated contracting state (EPC)

DE GB IT

DOCDB simple family (publication)

EP 0680872 A1 19951108; **EP 0680872 B1 19980408**; CN 1062224 C 20010221; CN 1126157 A 19960710; DE 69501975 D1 19980514; DE 69501975 T2 19981119; FR 2719550 A1 19951110; FR 2719550 B1 19960726; JP 3043593 B2 20000522; JP H08133191 A 19960528; US 5588618 A 19961231

DOCDB simple family (application)

EP 95400997 A 19950502; CN 95105361 A 19950503; DE 69501975 T 19950502; FR 9405478 A 19940504; JP 10430295 A 19950427; US 29808094 A 19940830